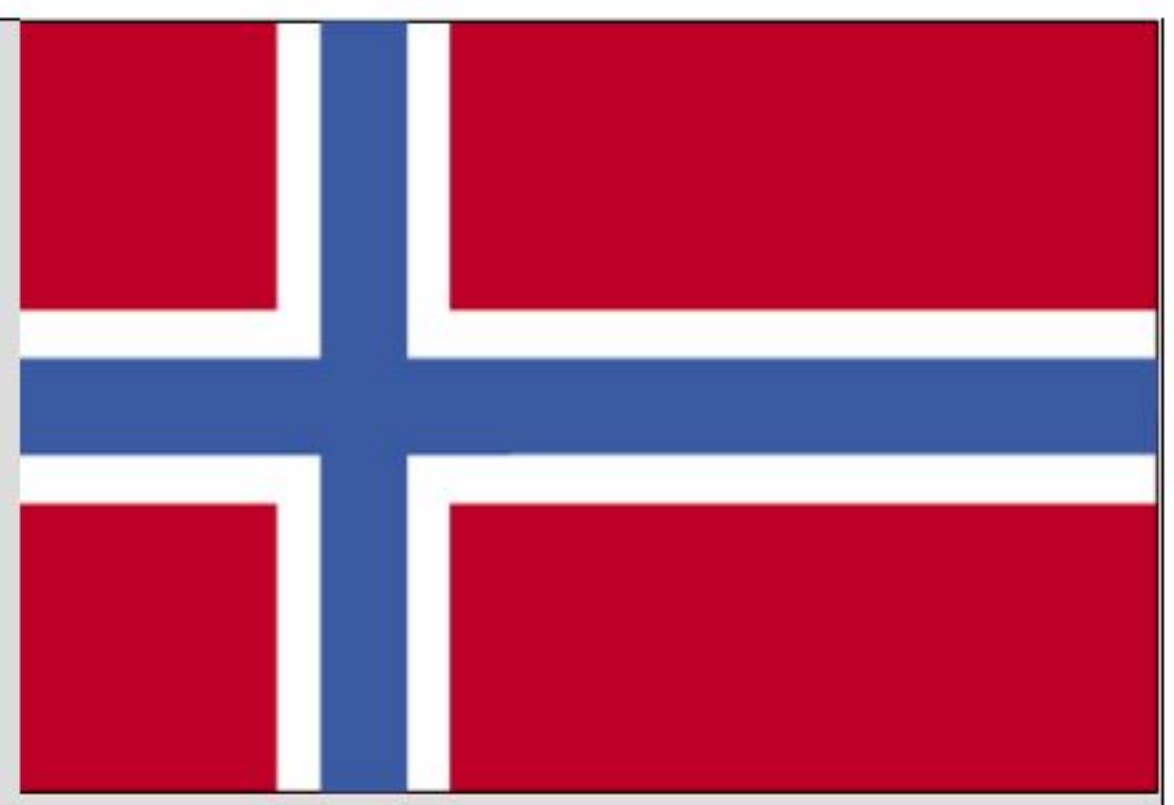


GASTRIC RUPTURE IN A DIVER DUE TO RAPID ASCENT



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Background

Stomach rupture due to barotrauma is an extremely rare event. Less than 20 cases have been described since 1969.

Case Report

A 60 year-old, experienced male SCUBA diver developed gastric rupture due to rapid ascent from a depth of 10m. Before the ascent he had technical problems with his equipment, and swallowed water and air. During the ascent he felt a sharp abdominal pain. After surfacing, he had breathing problems and the abdominal pain increased. He was brought to the local hospital. Due to sustained discomfort and an SpO₂ not exceeding 91% he was transferred to the regional hyperbaric centre by air ambulance. The diagnosis was made due to the presence of pneumoperitoneum on a routine chest x-ray taken on admittance (Fig 1). On surgery, a 1.5cm rupture of the lesser curvature was found and sutured.



Fig 1. The patient's X-ray showing pneumoperitoneum



Normal X-ray

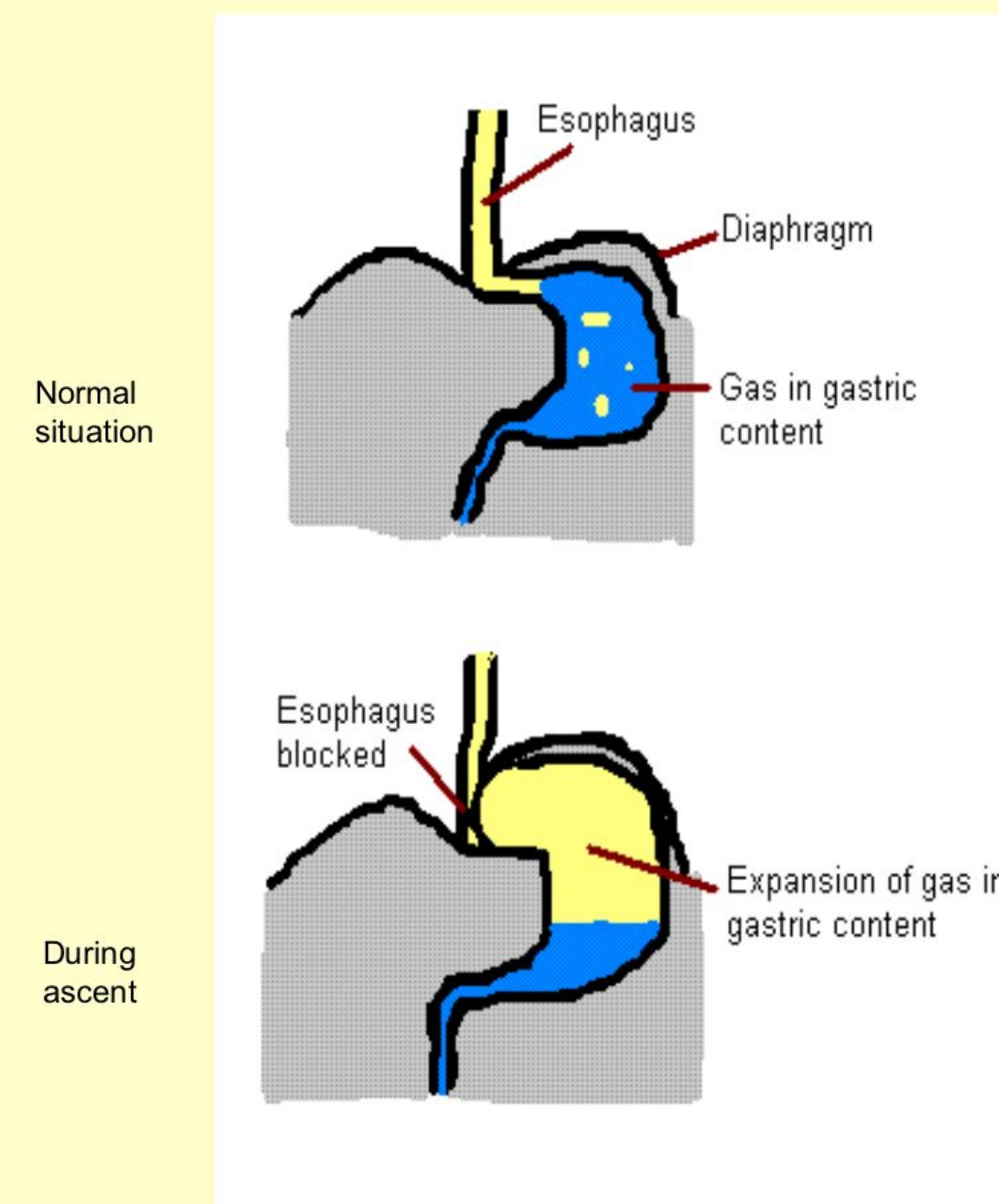


Fig 2. Distention of gas in the stomach closes the distal esophagus during ascent

Discussion

The rupture typically occurs at the lesser gastric curvature, probably due to a thin muscular layer and fewer mucosal folds, making it less elastic. Increased air volume in the stomach causes gastric distension and closes the esophagogastric junction, thus blocking the release of air through the mouth¹ (Fig 2).

References

1. Petri et al, Croat Med J 2002;43:42-44



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